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REMARKS

Claims 32-40 are pending in the application. Favorable reconsideration of the application is respectfully requested.

I. REJECTION OF CLAIMS 32 AND 34-39 UNDER 35 USC §102(e)

Claims 32 and 34-39 stand rejected under 35 USC §102(e) based on *Applicants Admitted Prior Art (Figs. 13-19)*, hereinafter *"AAPA"*. Applicants respectfully traverse this rejection for at least the following reasons.
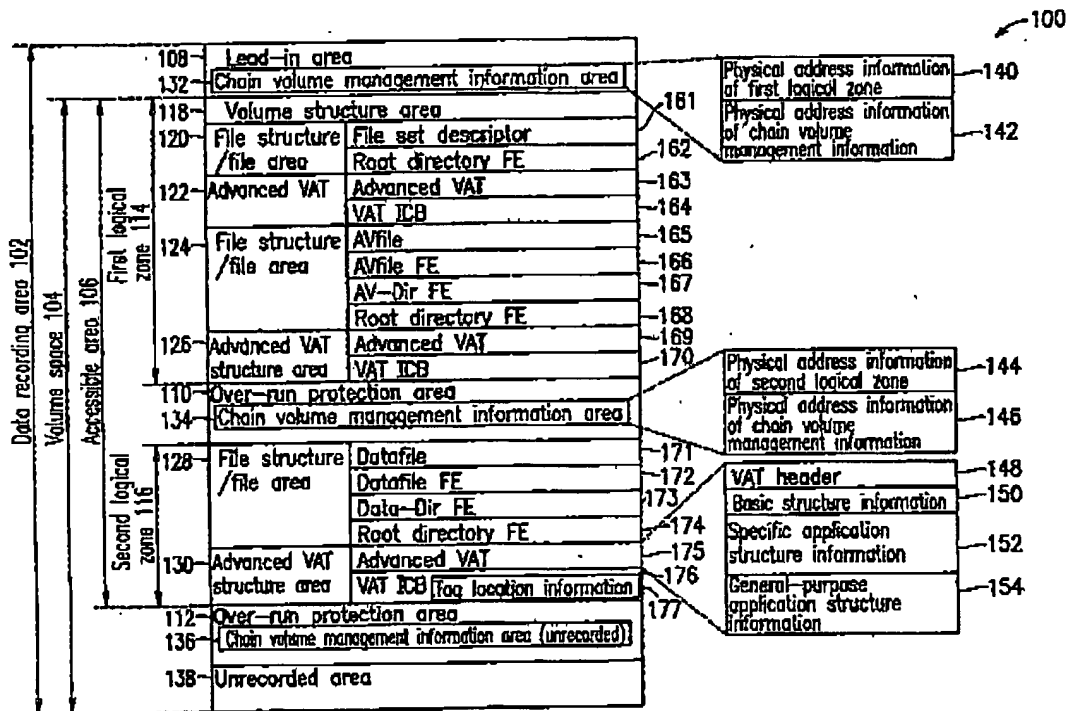

Fig. 1 of Present Application

Briefly reviewing, the present invention relates to an information recording medium 100 that includes a lead-in area 108 and a volume space 104 as exemplified in Fig. 1 (reproduced above). In particular, advanced virtual allocation table (VAT) structure areas 122 and 126 are recorded in the first logical zone 114. In each of the

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advanced VAT structure areas, an advanced VAT and a VATICB are recorded, wherein the recording position of the advanced VAT is designated by the VATICB. (See, e.g., Spec., p. 38, lns. 3-26). Similarly, in the second logical zone 116, an advanced VAT structure area 130 is recorded which includes an advanced VAT 175 and a VATICB 176.

Specifically, the advanced VAT 175 includes a VAT header 148, basic structure Information 150, specific application structure information 152, and general-purpose application structure information 154. (See, e.g., p. 41, lns. 20-23).

The basic structure information 150 is used to define a basic structure shared by a plurality of applications (e.g., a structure indispensable for interpreting a file structure, such as the file set descriptor 161 or the root directory file entry 162). (See, e.g., p. 41, lns. 25-29).

The specific application structure information 152 is used to define a specific application structure in association with a specific application out of a plurality of applications (e.g., a structure indispensable for searching an AVfile used in a household AV apparatus). (See, e.g., p. 41, ln. 31 to p. 42, ln. 2).

The general-purpose application structure information 154 is used to search a file in general applications, typically PC applications. (See, e.g., p. 42, lns. 4-6).

Claim 32 recites "... an advanced VAT structure area is allocated in the volume space, advanced VAT information for managing a relationship between virtual addresses each indicating an address in a virtual address space and logical addresses each indicating an address in a logical address space is recorded in the advanced VAT structure area, and in the advanced VAT information, basic structure information indicating a file structure which is indispensable for searching all files recorded in the information recording medium is assigned to at least one of the virtual addresses".

The advantages of sch features are that it is possible to read out the target file at a higher speed (see, e.g., p. 35, lns. 5-16) and it is also possible to read out a target file

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by searching a VAT using a small capacity memory and a low performance processor (see, e.g., p. 35, lns. 18-27).

Therefore, for example, a household AV apparatus having a restricted capacity memory and a relatively low performance processor can read out an AVfile at a high speed consistently using only the head sector of an area in which an advanced VAT is recorded. (See, e.g, p. 45, lns. 14-20).

The Examiner asserts that the aforementioned recitation of claim 32 is disclosed in paragraph 8 (p. 2, lns. 21-27) and paragraph 20 (p. 5, lns. 13-28). Applicants respectfully disagree with the Examiner for at least the following reasons.

In particular, *AAPA* discloses that VATs 1363, 1369 and 1375 are VATICBs 164, 170 and 176, which are recorded in the VAT structure areas 1322, 1326 or 1330, respectively, each have a data structure in conformity with the UDF standards. Additionally, a correspondence between a logical address and a virtual address is stored in the VAT wherein the recording position of a file structure is pointed to by a virtual address in a virtual address space and the recording position on a disk is pointed to by a logical address in a logical address space. (See, Spec., p. 5, lns. 13-28).

Moreover, *AAPA* discloses that a file is recorded in a conventional information recording medium 1300 using a volume file structure in conformity with DVD-R file system standards (version 1.0). (See, e.g., p. 2, lns. 21-27).

However, *AAPA* does *not* teach or suggest that in the advanced VAT information, basic structure information indicating a file structure *which is indispensable for searching all files recorded in the information recording medium is assigned to at least one of the virtual addresses* as recited in claim 32.

Summarizing, claim 32 recites that the advanced VAT information includes basic structure information indicating a file structure which is *indispensable* for searching all files recorded in the information recording medium. Such basic structure information is

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assigned to at least one of the virtual addresses referenced in the advanced VAT information.

The present application discusses basic structure information which is considered indispensable on pages 41-45 of the specification. As discussed at page 41, line 28, the basic structure information defines a basic structure shared by a plurality of applications (e.g., a structure indispensable for interpreting a file structure, such as the file set descriptor 161 or the root directory file entry 162). (See, e.g., dependent claim 33).

The Examiner points to paragraph number 8 of the published application as representing applicants' *AAPA* with respect to basic structure information which is indispensable. However, paragraph 8 of the published specification simply refers to files being recorded in the DVD-R recording medium 1300 using a volume file structure in conformity with the DVD-R file system standards. This portion of *AAPA* merely indicates that files of information are recorded on the DVD-R recording medium 1300 in accordance with the volume file structure established by the DVD-R file system standards. In other words, it does not teach or suggest that information is recorded in the VAT structure areas which represent basic structure information indicating a file structure which is indispensable for searching all files recorded in the information recording medium.   As is noted above, the specification at page 5, lines 7-22, describes the conventional VAT structure as showing the correspondence between virtual addresses and logical addresses. Moreover, the VAT is set to have a data structure which is in conformity with UDF standards.

Thus, *AAPA* does not teach or suggest an advanced VAT structure area having advanced VAT information including basic structure information indicating a file structure which is indispensable for searching all files recorded in the information recording area assigned to at least one of the virtual addresses as recited in claim 32.

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Claims 35-39 each share the similar feature with claim 32. Accordingly, claims 35-39 can each be distinguished over the teachings of *AAPA* for at least the same reasons as claim 32 as discussed above.

Withdrawal of the rejection is respectfully requested.

II.   REJECTION OF CLAIMS 33 AND 40 UNDER 35 USC §103(a)

Remaining claims 33 and 40 stand rejected under 35 USC §103(a) based on *AAPA* in view of *Hemsal*. Applicants respectfully traverse this rejection also.

Regarding claims 33 and 40, the Examiner admits that *AAPA* does not teach or suggest the advanced VAT information including a file set descriptor and a file entry of a root directory as recited in the claims. However, the Examiner contends that *Hemsal* teaches a virtual address of 0 and a virtual address of 1, and that it would have been obvious to assign a logical address of the file set descriptor to a virtual address 0 and a second VAT entry for assigning a logical address of the file entry of the root directory to a virtual address 1, based on the teachings of *Hemsal*.

Hemsal does not in any way teach or suggest that the file set descriptor and file entry of a root directory be basic structure information which is indispensable and included in the VAT information in a recording medium. Consequently, even if combined, the teachings *AAPA* and *Hemsal* do not result in the claimed invention.

Hemsal merely discloses an apparatus for the conversion of virtual to real addresses which can convert the addresses without requiring instruction from the central processing unit (CPU). (See, Col. 16, lns. 16-21). Additionally, *Hemsal* merely discloses that when the data element P is to be accessed, the CPU 204 now only has to issue the virtual address 0, then the MCU 200 will assert the corresponding real address (X+0) to the Main Memory 202. (See, Col. 24, lns. 5-7). *Hemsal* further merely discloses that "when the CPU 204 issues the virtual address 1, then the real address which will be issued by the CUP 204 will be either X+1, X+12 or X+23". (See, Col. 24, lns. 29-31).

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Thus, it would not have been obvious to one having ordinary skill in the art to combine the teachings of *AAPA* and *Hemsal* in the manner proposed by the Examiner. Perhaps more importantly, even if the teachings were combined the claimed invention would not result. *Hemsal* simply does not make up for the deficiencies in *AAPA* pointed out above.

Hence, applicants respectfully request withdrawal of the rejection of claims 33 and 40 as well.

III.   CONCLUSION

Accordingly, all claims 32-40 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.
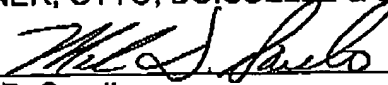
Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

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Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: December 1, 2005

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